Claims

1. Electrically controlled broadband group antenna comprising a plurality of antenna elements arranged in a common plane and connected to a feeder unit, characterized in that each antenna element comprises a rotationally-symmetrical body arranged on an earth plane that is common to several antenna elements, with the axis of rotation of the body essentially perpendicular to the earth plane, which body, at the end furthest away from the earth plane, is shaped so that it tapers inwards with increasing distance from the earth plane and is provided with a metallic casing surface.

2. Group antenna according to Claim 1, characterized in that the earth plane is provided with recesses in the forms of slots that separate the antenna elements from each other and function electrically as open circuits.

3. Group antenna according to any one of the preceding claims, characterized in that the antenna elements are connected to the earth plane by means of a connection that can be broken, such as a screw connection.

4. Group antenna according to any one of the preceding claims, characterized in that a spacing sleeve is incorporated in each antenna element at the transition between the rotationally-symmetrical body and the earth plane.

5. Group antenna according to any one of the preceding claims, characterized in that the earth plane is provided with two cable bushes for each antenna element, which are each allocated a double-conductor, for example a coaxial cable, one conductor of which is

attached to the antenna element and the other conductor of which is attached to an adjacent antenna element.

6. Group antenna according to any one of the preceding claims, characterized in that the antenna elements are placed in a rectangular grid.

7. Group antenna according to any one of Claims 1-5, characterized in that the antenna elements are placed in a triangular grid.

8. Group antenna according to Claims 4 and 5, characterized in that the spacing sleeves comprise cable bushes.

9. Group antenna according to any one of the preceding claims, characterized in that two adjacent antenna elements are arranged with a distance between centres of essentially half a wavelength for the highest working frequency of the group antenna.

10. Group antenna according to any one of the preceding claims, characterized in that the feeder unit comprises one or more microwave units that form the antenna elements' common earth plane.

11. Antenna element suitable for incorporation in an electrically controlled broadband group antenna according to any one of the preceding claims, the antenna element comprising a rotationally-symmetrical body tapering towards one end, characterized in that the rotationally-symmetrical body is provided with a metallic casing surface.

12. Antenna element according to Claim 11, characterized in that the other end of the body comprises means for attaching the body in such a way that it can be removed.

13. Antenna element according to Claim 12, characterized in that the means for attaching the body in such a way that it can be removed comprise one part of a screw connection.

14. Antenna element according to any one of the preceding Claims 11-13, characterized in that rotationally-symmetrical body is essentially a conical shape.

15. Antenna element according to any one of Claims 11-13, characterized in that rotationally-symmetrical body is essentially a circular paraboloid.

16. Antenna element according to any one of Claims 11-15, characterized in that the rotationally-symmetrical body consists principally of aluminium.

17. Antenna element according to any one of Claims 11-16, characterized in that the rotationally-symmetrical body is hollow.

18. Antenna element according to any one of Claims 11-16, characterized in that the rotationally-symmetrical body consists of an homogenous metallic material.

19. Antenna element according to any one of Claims 11-18, characterized in that a circular spacing sleeve is incorporated in association with the other end of the body.

20. Antenna element according to Claim 19, characterized in that the spacing sleeve is provided with at least one cable bush with a first opening aligned in the radial direction of the spacing sleeve and a second opening aligned parallel with the axis of symmetry of the body and the sleeve.

21. Antenna module comprising a plurality of antenna elements according to any one of Claims 11-20.